March 11, 2003

Re: Lone Star Industries, Inc. 133-16484-00002

TO: Interested Parties / Applicant

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this approval is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) the date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for consideration at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosure

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.state.in.us/idem

March 11, 2003

Mr. John Kass
Lone Star Industries, Inc.
P.O Box 482
Greencastle, Indiana 46135

Re: Minor Source Modification No.
133-16484-00002

Dear Mr. Kass:

Lone Star Industries, Inc., applied for a Part 70 operating permit on October 15, 1996 for a Portland cement manufacturing process. An application to modify the source was received on November 19, 2002. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

(a) One (1) clinker resizing operation, operating parallel to existing clinker feeders and a clinker belt conveyor (emission point 3-24), comprised of the following activities and facilities:

(1) One (1) loader haul operation, identified as Unit #2 (F3-32), with fugitive emissions;

(2) One (1) vibrating feeder, identified as Unit #2 (F3-33), with a maximum throughput of two hundred fifty (250) tons per hour of weathered clinker, with emissions uncontrolled;

(3) One (1) jaw crusher, identified as Unit #3, with a maximum throughput of two hundred fifty (250) tons per hour of weathered clinker, with emissions controlled by Dust Collector #1, exhausting to stack S3-34; and

(4) Two (2) belt conveyors, identified as Unit #4 and Unit #5, operating in series, feeding existing belt 3-21 (220V), each with a maximum throughput of two hundred fifty (250) tons per hour, with emissions controlled by Dust Collector #1, exhausting to stack S3-34.

(b) One (1) belt scale on 3-21 (220V), with emissions controlled by existing fabric filter system F3-21 (baghouse 221L).

The proposed Minor Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC 2-7-10.5(d)(6)(a). The source may begin operation upon issuance of the source modification approval.

Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Kristin Clapp, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (703) 633-1694 to speak directly to Ms. Clapp. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
ERG/KC

cc: File - Putnam County
Putnam County Health Department
Air Compliance Section Inspector - Jim Thorpe
Compliance Data Section - Karen Nowak
Administrative and Development - Sara Cloe
Technical Support and Modeling - Michele Boner

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PART 70 MINOR SOURCE MODIFICATION
OFFICE OF AIR QUALITY

Lone Star Industries, Inc.
3301 South County Rd. 150 W
Greencastle, Indiana 46135

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification No.: 133-16484-00002	
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: March 11, 2003

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SECTION A SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary Portland cement manufacturing plant.

Responsible Official:	John Kass
Source Address:	3301 South County Road 150 West, Greencastle, Indiana 46135
Mailing Address:	P.O. Box 482, Greencastle, IN 46135
General Source Phone Number:	(765) 653-8816
SIC Code:	3241
County Location:	Putnam
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source under PSD Rules Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source is approved to construct and operate the following emission units and pollution control devices:

(a) One (1) clinker resizing operation, operating parallel to existing clinker feeders and a clinker belt conveyer (emission point 3-24), comprised of the following activities and facilities:

(1) One (1) loader haul operation, identified as Unit #2 (F3-32), with fugitive emissions;

(2) One (1) vibrating feeder, identified as Unit #2 (F3-33), with a maximum throughput of two hundred fifty (250) tons per hour of weathered clinker, with emissions uncontrolled;

(3) One (1) jaw crusher, identified as Unit #3, with a maximum throughput of two hundred fifty (250) tons per hour of weathered clinker, with emissions controlled by Dust Collector #1, exhausting to stack S3-34; and

(4) Two (2) belt conveyors, identified as Unit #4 and Unit #5, operating in series, feeding existing belt 3-21 (220V), each with a maximum throughput of two hundred fifty (250) tons per hour, with emissions controlled by Dust Collector #1, exhausting to stack S3-34.

(b) One (1) belt scale on 3-21 (220V), with emissions controlled by existing fabric filter system F3-21 (baghouse 221L).

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This modification to a stationary source does not currently have any insignificant activities, as defined in 326 IAC 2-7-1(21).

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22); and

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.3 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.4 NESHAP Reporting Requirement Part 63.1354

Pursuant to the National Emission Standards for Hazardous Air Pollutants (NESHAP), Part 63.1354, Subpart LLL, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

(a) Initial Notification per 40 CFR 63.9(b) through (d);

(b) Notification of opacity and visible emissions observations required by Section 63.1349 in accordance with Sections 63.6(h)(5) and 63.9(f); and

(c) Notification of compliance status as required by Section 63.9(h).

Reports are to be sent to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, IN 46206-6015

The application and enforcement of these standards have been delegated to the IDEM, OAQ. The requirements of 40 CFR Part 60 are also federally enforceable.

SECTION C GENERAL OPERATION CONDITIONS

C.1 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) when operation begins, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

If the Operations and Maintenance Plan required by 40 CFR 63, Subpart LLL is developed in accordance with the regulation, then the Operations and Maintenance Plan shall satisfy this condition.

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

C.4 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission unit vented to the control equipment are in operation.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using ambient air quality modeling pursuant to 326 IAC 1-7-4.

Testing Requirements [326 IAC 2-7-6(1)]

C.8 Performance Testing [326 IAC 3-6][326 IAC 2-1.1-11]

(a) Compliance testing on new emission units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this approval, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

If required by Section D, all monitoring and record keeping requirements shall be implemented when operation begins. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.12 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

(a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(b) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.13 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall constitute a violation of the permit.

(a) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously

submitted a request for a minor permit modification to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

(e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.14 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality

100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.
The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.16 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

(a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.17 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

(a) The reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Clinker Resizing Operation

(a) One (1) clinker resizing operation, operating parallel to existing clinker feeders and a clinker belt conveyor (emission point 3-24), comprised of the following activities and facilities:

(1) One (1) loader haul operation, identified as Unit #2 (F3-32), with fugitive emissions;

(2) One (1) vibrating feeder, identified as Unit #2 (F3-33), with a maximum throughput of two hundred fifty (250) tons per hour of weathered clinker, with emissions uncontrolled;

(3) One (1) jaw crusher, identified as Unit #3, with a maximum throughput of two hundred fifty (250) tons per hour of weathered clinker, with emissions controlled by Dust Collector #1, exhausting to stack S3-34; and

(4) Two (2) belt conveyors, identified as Unit #4 and Unit #5, operating in series, feeding existing belt 3-21 (220V), each with a maximum throughput of two hundred fifty (250) tons per hour, with emissions controlled by Dust Collector #1, exhausting to stack S3-34.

(b) One (1) belt scale on 3-21 (220V), with emissions controlled by existing fabric filter system F3-21 (baghouse 221L).

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR 63, Subpart A]

The provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the vibrating feeder (Unit #2 F3-33), jaw crusher (Unit #3), belt conveyors (Unit #4 and Unit #5), and belt scale except when otherwise specified in 40 CFR 63, Subpart LLL.

D.1.2 Opacity Limitation [326 IAC 20-1][40 CFR 63, Subpart LLL]

Pursuant to 40 CFR 63.1348 (Emissions Standards and Operating Limits), upon startup, the visible emissions from the vibrating feeder (Unit #2 F3-33), jaw crusher (Unit #3), belt conveyors (Unit #4 and Unit #5), and belt scale shall be limited to ten percent (10%) opacity or less.

D.1.3 PM and PM10 Emission Limitations [326 IAC 2-2][40 CFR 52.21]

(a) The throughput to clinker resizing operation shall not exceed 50,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) The emissions from Unit #3, Unit #4, and Unit #5 shall be subject to the following limitations:

Control Device	Grain Loading (gr/acfm)	Air Flow Rate	PM Emission Limitation (lb/hr)	PM10 Emission Limitation (lb/hr)
Dust Collector #1	0.01	3,500	0.30	0.30

These limitations are equivalent to emissions of 1.31 tons of PM and of PM10 per year from Unit #3, Unit #4, and Unit #5, combined, 3.75 tons per year of PM and of PM10 per year from Unit #2 (F3-33), and 0.29 tons per year of PM and of PM10 from miscellaneous conveying. These limits

are structured such that, when including the fugitive emissions from load haul, total emissions from the modification remain less than twenty-five (25) tons of PM per year and less than fifteen (15) tons of PM10 per year. Therefore, compliance with these limitations renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.1.4 Particulate Emission Limitation [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the clinker resizing operation shall be limited to less than 13.17 pounds per hour when operating at a process weight rates of 50,000 tons per year. This limit was calculated as follows:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

(a) A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

(b) If the Operations and Maintenance Plan required by Condition D.1.8 is developed in accordance with Section C - Preventive Maintenance Plan, then upon startup, the Operations and Maintenance Plan shall satisfy the PMP.

Compliance Determination Requirements

D.1.6 Particulate

In order to comply with Conditions D.1.3(b) and D.1.4, Dust Collector #1 for particulate control shall be in operation and control emissions from Unit #3, Unit #4, and Unit #5 at all times that Unit #3, Unit #4, or Unit #5 are in operation.

D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

(a) No later than 180 days after startup, the Permittee shall demonstrate initial compliance with the limits established in Condition D.1.2 by conducting a test in accordance with 40 CFR 63.1349, Method 9 of 40 CFR Part 60, Appendix A, and Section C - Performance Testing.

(b) No later than 180 days after startup, and in order to comply with Condition D.1.3(b), the Permittee shall perform PM and PM10 testing for dust collector #1 utilizing methods as approved by the commissioner. Testing shall be conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.8 NESHAP Monitoring Requirements [326 IAC 20-1][40 CFR 63, Subpart LLL]

Pursuant to 40 CFR 63.1350 (Monitoring Requirements), the Permittee shall prepare a written operations and maintenance plan for the clinker resizing operation upon startup. The plan shall include the following information:

(a) Procedures for proper operation and maintenance of the affected sources and associated air pollution control device(s) in order to meet the emissions limit in Condition D.1.2; and

(b) Procedures to be used to periodically monitor the facilities listed in this section, which are subject to opacity standards under 40 CFR 63.1348. Such procedures must include the following provisions:

(1) The Permittee shall conduct a monthly 1-minute visible emissions test of each affected source except for the finish mills or raw mills, in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the affected source is in operation.

(2) If no visible emissions are observed in six consecutive monthly test for any affected source, the Permittee may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the Permittee shall resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

(3) If no visible emissions are observed during the semi-annual test for any affected source, the Permittee may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, the Permittee shall resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

(4) If visible emissions are observed during any Method 22 test, the Permittee must conduct a 6-minute test of opacity in accordance with 40 CFR 60, Subpart A, Method 9. The Method 9 test must begin within one hour of any observation of visible emissions.

Failure to comply with any provision of the operations and maintenance plan shall be a violation of the standard.

D.1.9 Visible Emissions Notations

(a) Once per shift visible emission notations of the S3-34 exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.1.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across the dust collector used in conjunction with Unit #3, Unit #4, and Unit #5, at least once per shift when Unit #3, Unit #4, or Unit #5 is in operation. When for any one reading, the pressure drop across the baghouse is

outside the normal range of 1.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.11 Dust Collector Inspections

An inspection shall be performed each calender quarter of Dust Collector #1 controlling Unit #3, Unit #4, and Unit #5. No two (2) inspections required by this condition shall be conducted in consecutive months. All defective bags shall be replaced.

D.1.12 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.13 Record Keeping Requirements

(a) To document compliance with Condition D.1.3(a), the Permittee shall maintain records of the throughput to the clinker resizing operation.

(b) To document compliance with Condition D.1.9, the Permittee shall maintain records of the once per shift visible emission notations of stack S3-34 exhaust.

(c) To document compliance with Condition D.1.10, the Permittee shall maintain weekly records of the total static pressure drop across Dist Collector #1 associated with Unit #3, Unit #4, and Unit #5.

(d) To document compliance with Condition D.1.11, the Permittee shall maintain records of the results of the inspections required under Condition D.1.11.

(e) To document compliance with the NESHAP 40 CFR 63, Subpart LLL, the Permittee shall maintain all records required by 40 CFR 63.1355. These records include the following:

(1) The Permittee shall maintain files of all information (including all reports and notifications) required by 40 CFR 60.1355(a) recorded in a form suitable and readily available for inspection and review as required by 40 CFR 63.10(b)(1).

(2) The Permittee shall maintain records for each affected source as required by 40 CFR 63.10(b)(2) and (3) including:

(A) All documentation supporting initial notifications and notification of compliance status under 40 CFR 63.9.

(B) All records of applicability determination, including supporting analyses.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.14 Reporting Requirements

(a) A quarterly summary of the information to document compliance with Condition D.1.3(a) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) To document compliance with 40 CFR 63, Subpart LLL, the Permittee shall report the information required by 40 CFR 63.1354, including, but not limited to the following:

(1) The plan required by Condition D.1.8 shall be submitted to IDEM, OAQ and U.S. EPA upon startup.

(2) As required by 40 CFR 63.10(d)(2), the Permittee shall report the results of performance tests as part of the notification of compliance status, required in Section B - NESHAP Reporting Requirements.

(3) As required by 40 CFR 63.10(d)(3), the Permittee shall report the opacity results from tests required by 40 CFR 63.1349.

(4) As required by 40 CFR 63.10(d)(5), if actions taken by the Permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan specified in 40 CFR 63.6(e)(3), the Permittee shall state such information in a semiannual report. Reports shall only be required if startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report may be submitted simultaneously with the excess emissions and continuous monitoring system performance reports.

(5) Pursuant to 40 CFR 63.10(d)(5)(ii), any time an action taken by the Permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the Permittee shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan, by telephone call to the OAQ Compliance Section at (317)232-8440 or facsimile (FAX) transmission at (317)233-6865. The immediate report shall be followed by a letter within 7 working days after the end of the event, certified by the Permittee, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess

emissions and/or parameter monitoring exceedances are believed to have occurred.

(c) In addition to being submitted to the address listed in Section C - General Reporting Requirements, all reports and the operation and maintenance plan required by (b) and submitted pursuant to 40 CFR 63, Subpart A shall also be submitted to the U.S. EPA at the following address:

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Pursuant to 40 CFR 63.10(d)(5)(i) and (ii), the reports submitted by the Permittee shall include the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PART 70 SOURCE MODIFICATION CERTIFICATION

Source Name: Lone Star Industries, Inc.
Source Address: 3301 South County Rd 150 West, Greencastle, Indiana 46135
Mailing Address: P.O. Box 482, Greencastle, IN 46135
Source Modification No.: MSM133-16484-00002

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.

Please check what document is being certified:

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Affidavit (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Source Modification Quarterly Report

Source Name: Lone Star Industries, Inc.
Source Address: 3301 South County Rd 150 West, Greencastle, Indiana 46135
Mailing Address: P.O. Box 482, Greencastle, IN 46135
Source Modification No.: MSM133-16484-00002
Facility: Clinker Resizing Operation
Parameter: Clinker Throughput
Limit: The throughput to clinker resizing operation shall not exceed 50,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Minor Source Modification

Source Background and Description

Source Name:	Lone Star Industries, Inc.
Source Location:	3301 South County Road 150 West, Greencastle, Indiana 46135
County:	Putnam
SIC Code:	3241
Operation Permit No.:	T133-6927-00002
Operation Permit Issuance Date:	Pending
Minor Source Modification No.:	MSM133-16484-00002
Permit Reviewer:	ERG/KC

The Office of Air Quality (OAQ) has reviewed a modification application from Lone Star Industries, Inc. relating to the construction of the following emission units and pollution control devices:

(a) One (1) clinker resizing operation, operating parallel to existing clinker feeders and a clinker belt conveyor (emission point 3-24), comprised of the following activities and facilities:

(1) One (1) loader haul operation, identified as Unit #2 (F3-32), with fugitive emissions;

(2) One (1) vibrating feeder, identified as Unit #2 (F3-33), with a maximum throughput of two hundred fifty (250) tons per hour of weathered clinker, with emissions uncontrolled;

(3) One (1) jaw crusher, identified as Unit #3, with a maximum throughput of two hundred fifty (250) tons per hour of weathered clinker, with emissions controlled by Dust Collector #1, exhausting to stack S3-34; and

(4) Two (2) belt conveyors, identified as Unit #4 and Unit #5, operating in series, feeding existing belt 3-21 (220V), each with a maximum throughput of two hundred fifty (250) tons per hour, with emissions controlled by Dust Collector #1, exhausting to stack S3-34.

(b) One (1) belt scale on 3-21 (220V), with emissions controlled by existing fabric filter system F3-21 (baghouse 221L).

History

On November 19, 2002, Lone Star Industries, Inc. submitted an application to the OAQ requesting to add a clinker resizing operation to their existing plant. Lone Star Industries, Inc. submitted an application for a Part 70 permit on October 15, 1996. This source has previously been issued the following permits: MSM 133-16137-00002, issued August 29, 2002; AA 133-16207-00002, issued August 19, 2002; SSM133-15262-00002, issued on April 9, 2002; SSM133-14452-00002, issued February 26, 2002; I133-14452I-00002, issued June 25, 2001; AA133-12826-00002, issued January 8, 2001; E133-10690-0002, issued on April 28, 1999; and CP133-10159-00002, issued April 16, 1999 (This permit supercedes all permits issued prior to it). The following permits are pending: E133-14867-00002; AA 133-15546-00002; and 133-15737-00002.

Enforcement Issue

There are no enforcement issues with this new equipment.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
S3-34	Weathered clinker crusher	30	TBD	3,500	Ambient

Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on November 19, 2002.

Emission Calculations

See Appendix A (pages 1 through 1) of this document for detailed emissions calculations. Note that the emission calculations are for the new equipment. The addition of these units does not increase the utilization of any existing equipment. These units just allow for more efficient use of raw material. Additionally this system feeds into an existing process that has a clinker throughput limit.

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	313.53

Pollutant	Potential To Emit (tons/year)
PM-10	313.53
SO_2	0
VOC	0
CO	0
NO_x	0

HAP's	Potential To Emit (tons/year)
TOTAL	0

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Minor Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(d)(6) as these units are subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR 63, Subpart LLL), which is the most stringent applicable requirement.

County Attainment Status

The source is located in Putnam County.

Pollutant	Status
PM-10	Attainment
SO_2	Attainment
NO_2	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Putnam County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2, and 40 CFR 52.21.

(b) Putnam County has been classified as attainment or unclassifiable for all criteria pollutants and lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2, and 40 CFR 52.21.

(c) Fugitive Emissions
Since this type of operation is one of the 28 listed source categories under 326 IAC 2-2 and since there are applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	402
PM-10	177
SO_2	3,278
VOC	24.4
CO	2,831
NOx	4,389

(a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of 100 tons per year or more and this source is one of the 28 listed source categories.

(b) These emissions are based upon the Technical Support Document (TSD) for CP133-10159-00002, issued April 16, 1999.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Loading Haul (Unit #2 F3-32)	5.00	5.00	0	0	0	0	0
Vibrating Feeder (Unit #2 F3-33)	3.75	3.75	0	0	0	0	0
Crusher (Unit #3), Belt Conveyors (Unit #4 and Unit #5)	1.31	1.31	0	0	0	0	0
Miscellaneous Conveying	0.29	0.29	0	0	0	0	0
Belt Scale on 3-21 (220V)*	1.13	1.13	0	0	0	0	0
Total	11.48	11.48	0	0	0	0	0
PSD Thresholds	25	15	40	40	100	40	–

* These emissions are from an existing baghouse.

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

(a) 40 CFR Part 60, Subpart F (Standards of Performance for Portland Cement Plants) applies to the vibrating feeder (Unit #2 F3-33), jaw crusher (Unit #3), belt conveyors (Unit #4 and Unit #5), and belt scale because they exist in a Portland cement plant and were constructed or modified after August 17, 1971. Pursuant to this rule, these facilities shall be limited to ten percent (10%) opacity. After June 14, 2002, the requirements of this regulation will be superseded by the requirements of 40 CFR 63, Subpart LLL (National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry).

(b) 40 CFR 63, Subpart LLL (National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry) applies to the vibrating feeder (Unit #2 F3-33), jaw crusher (Unit #3), belt conveyors (Unit #4 and Unit #5), and belt scale because they exist at a source that is a major source of HAPs. Pursuant to 63.1340, the affected sources include each conveying system transfer point and bulk loading and unloading system. Therefore, the transfer points of the vibrating feeder, crusher, and belt conveyors are subject to 40 CFR 63, Subpart LLL and these facilities shall be limited to ten percent (10%) opacity.

(c) This modification is subject to the provisions of 40 CFR 64, Compliance Assurance Monitoring. In order for this rule to apply, a specific emissions unit must meet three criteria for a given pollutant: 1) the unit is subject to an emission limitation or standard for the applicable regulated air pollutant, 2) the unit uses a control device to achieve compliance with any such emission limitation or standard, and, 3) the unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount required for a source to be classified as a major source. However, this source submitted the Part 70 application prior to April 20, 1998 and therefore the source is not subject to the provisions of 40 CFR 64, Compliance Assurance Monitoring at this time. Upon renewal of the Part 70 permit, the crushing operation (Unit #3, #4, and #5) will be subject to CAM because it satisfies all three of the requirements listed above.

(d) The requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56) are not applicable to this modification because (1) the modification has the potential to emit less than ten (10) tons per year of a single HAP and less than twenty-five (25) tons per year of any combination of HAPs, and 2) the modification does not include one or more units that belong to one or more source categories affected by the Section 112(j) MACT Hammer date of May 15, 2002.

State Rule Applicability - Individual Facilities

326 IAC 2-2 (Prevention of Significant Deterioration)

(a) The throughput to clinker resizing operation shall not exceed 50,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) The emissions from Unit #3, Unit #4, and Unit #5 shall be subject to the following limitations:

Control Device	Grain Loading (gr/acfm)	Air Flow Rate	PM Emission Limitation (lb/hr)	PM10 Emission Limitation (lb/hr)
Dust Collector #1	0.01	3,500	0.30	0.30

These limitations are equivalent to emissions of 1.31 tons of PM and of PM10 per year from Unit #3, Unit #4, and Unit #5, combined, 3.75 tons per year of PM and of PM10 per year from Unit #2 (F3-33), and 0.29 tons per year of PM and of PM10 from miscellaneous conveying. These limits are structured such that, when including the fugitive emissions from load haul, total emissions from the modification remain less than twenty-five (25) tons of PM per year and less than fifteen (15) tons of PM10 per year. Therefore, compliance with these limitations renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

326 IAC 2-4.1-1 (New Source Toxics Control)

This modification is not subject to 326 IAC 2-4.1-1 because no units emit hazardous air pollutants.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the clinker resizing operation shall be limited to less than 13.17 pounds per hour when operating at a process weight rate of 50,000 tons per year. This limitation was calculated using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Dust Collector #1 shall be in operation at all times Unit #3, Unit #4, or Unit #5 is in operation, in order to comply with this limit.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for

enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this modification are as follows:

1. The clinker resizing operation has applicable compliance monitoring conditions as specified below:

   (a) Pursuant to 40 CFR 63.1350 (Monitoring Requirements), the Permittee shall prepare a written operations and maintenance plan for the clinker resizing operation upon startup. The plan shall include the following information:

      (A) Procedures for proper operation and maintenance of the affected sources and associated air pollution control device(s) in order to meet the emissions limit in Condition D.1.2; and

      (B) Procedures to be used to periodically monitor the facilities listed in this section, which are subject to opacity standards under 40 CFR 63.1348. Such procedures must include the following provisions:

         (i) The Permittee shall conduct a monthly 1-minute visible emissions test of each affected source except for the finish mills or raw mills, in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the affected source is in operation.

         (ii) If no visible emissions are observed in six consecutive monthly test for any affected source, the Permittee may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the Permittee shall resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

         (iii) If no visible emissions are observed during the semi-annual test for any affected source, the Permittee may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, the Permittee shall resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

         (iv) If visible emissions are observed during any Method 22 test, the Permittee must conduct a 6-minute test of opacity in accordance with 40 CFR 60, Subpart A, Method 9. The Method 9 test must begin within one hour of any observation of visible emissions.

      Failure to comply with any provision of the operations and maintenance plan shall be a violation of the standard.

   (b) Once per shift visible emissions notations of the S3-34 stack exhaust shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup

or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

(c) The Permittee shall record the total static pressure drop across the dust collector used in conjunction with Unit #3, Unit #4, and Unit #5, at least once per shift when Unit #3, Unit #4, or Unit #5 is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

(d) An inspection shall be performed each calender quarter of Dust Collector #1 controlling Unit #3, Unit #4, and Unit #5. No two (2) inspections required by this condition shall be conducted in consecutive months. All defective bags shall be replaced.

(e) In the event that bag failure has been observed:

(A) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(B) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because Dust Collector #1 controlling emissions from Unit #3, Unit #4, and Unit #5 must operate properly to ensure

compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), 326 IAC 2-2 (Prevention of Significant Deterioration), and 40 CFR 52.21.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 133-16484-00002.

Apppendix A: Emission Calculations
Company Name: Lone Star Industries, Inc.
Address City IN Zip: 3301 South County Road 150 West, Greencastle, IN 46135
Permit Number: MSM133-16484-00002
Plant ID: 133-00002
Reviewer: ERG/KC
Date: 12/03/2002

Unpaved Roads: Clinker Haul

1 trip/hr x
0.1 mile/trip x
2 (round trip) x
8760 hr/yr = 1752 miles per year

Ef = k*[(s/12)^0.8]*[(W/3)^b]/[(M/0.2)^c]
= 5.70 lb/mile
where k = 2.6 (particle size multiplier for PM-10) (k= 10 for PM-30 or TSP)
s = 9 mean % silt content of unpaved roads
b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)
c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)
W = 38 tons average vehicle weight
M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)

$$\frac{5.70 \text{ lb/mi} \times 1752 \text{ mi/yr}}{2000 \text{ lb/ton}} = \textbf{\textit{5.00 tons/yr}}$$

Vibrating Feeder (Unit #2 F3-33)

Unit	Emission Factor (lb/ton)	Maximum Throughput (ton/yr)	Potential Emissions (ton/yr)	Limited Throughput (ton/yr)	Limited Emissions (ton/yr)
F3-32	0.15	2,190,000	***164.25***	50,000	***3.75***

Emissions = Emission Factor (lb/ton) * Throughput (ton/yr) / 2000 (lb/ton)

Crusher (Unit #3), Belt Conveyors (Unit #4 and Unit #5)

Unit	Grain Loading (gr/acfm)	Air Flow Rate (acfm)	Control Efficiency (%)	Uncontrolled Emissions (ton/yr)	Controlled Emissions (ton/yr)
Dust Collector #1	0.01	3,500	99.00%	***131.4***	***1.31***

Uncontrolled Emissions (ton/yr) = Grain Loading (gr/acfm) * Air Flow Rate (acfm) * 60 (min/hr) * 8760 (hr/yr) / 7000 (gr/lb) / 2000 (lb/ton) / (1-Control Effic
Controlled Emissions (ton/yr) = Uncontrolled Emissions (ton/yr) * (1-Control Efficiency)

Miscellaneous Conveying

Unit	Emission Factor (lb/ton)	Number of Transfer Points	Maximum Throughput (ton/yr)	Potential Emissions (ton/yr)	Limited Throughput (ton/yr)	Limited Emissions (ton/yr)
Miscellaneous Conveying	0.00294	4	2,190,000	***12.88***	50,000	***0.29***

Emissions = Emission Factor (lb/ton) * Throughput (ton/yr) * Number of Transfer Points / 2000 (lb/ton)

Belt Scale on 3-21 (220V) - Note that this change to 3-21 (220V) will not increase emissions because emissions from 3-21 (220V) are controlled by fabric

Unit	Grain Loading (gr/acfm)	Air Flow Rate (acfm)	Control Efficiency (%)	Uncontrolled Emissions (ton/yr)	Controlled Emissions (ton/yr)
3-21	0.01	3000	99.00%	112.63	1.13